

REMARKS

Applicants respectfully request reconsideration of the present U.S. Patent application as amended herein. Claims 2-10, 12-18, 23-27, 29-32, 34-36 and 38-55 stand rejected under 35 U.S.C. § 103. Claims 30, 31, 38 and 39 have been amended. Claims 40, 49 and 53 have been canceled. No claims have been added. Therefore, by this amendment, claims 2-10, 12-18, 23-27, 29-32, 34-36, 38, 39, 41-48, 50-52, 54 and 55 are pending.

Withdrawn Allowable Subject Matter

Examiner has withdrawn allowability of claims 2, 14, 23-27, 29-32, 34-36, 38-40, 46 and 49-55, in view of newly discovered reference *Lo*.

Claim Rejections - 35 U.S.C. § 103

Rejections of Claims 2-10, 12-18, 23-27, 29-32, 34-36 and 38-55 based on *Lo*

Claims 2-10, 12-18, 23-27, 29-32, 34-36 and 38-55 were rejected as being unpatentable over U.S. Patent No. 6,324,178 issued to Lo et al. (*Lo*). Claims 40, 49 and 53 have been canceled without prejudice. Therefore, the rejections of claims 40, 49 and 53 as being unpatentable over *Lo* are moot. For at least the reasons set forth below, Applicants submit that claims 2-10, 12-18, 23-27, 29-32, 34-36, 38, 39, 41-48, 50-52, 54 and 55 are not rendered obvious by *Lo*.

Amended claim 2 recites the following:

a bus with a bus device coupled thereto, wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network.

Claims 12, 30, 31, 38 and 39 recite a similar limitation. A proper rejection under 35 U.S.C. § 103 requires that a prior art reference, or references when combined, must teach or suggest all of the claim limitations of the rejected claim. See MPEP § 2143.

Lo discloses a bridge circuit that transfers a data packet from a first communication domain having a particular data frame format to a second communication domain having a different data frame format. See col. 5, line 62 – col. 6, line 8. *Lo* does not disclose a bus device that generates isochronous data and a network that operates asynchronously, such that isochronous data is transported over an asynchronous network. Thus, *Lo* fails to teach or suggest all the limitations of claims 2, 12, 30, 31, 38 and 39. Consequently, claims 2, 12, 30, 31, 38 and 39 are not rendered obvious by *Lo* for at least the reasons set forth above. Applicants therefore respectfully request that the Examiner withdraw the rejection of claims 2, 12, 30, 31, 38 and 39 under 35 U.S.C. § 103.

Claims 3-10 and 13-18 depend from claim 2. Claims 41-48 depend from claim 12. Claims 23-27 and 29 depend from claim 30. Claims 32 and 50-52 depend from claim 31. Claims 34-36 depend from claim 38. Claims 54 and 55 depend from claim 39. Because dependent claims include the limitations of the claims from which they depend, Applicants submit that claims 3-10, 13-18, 23-27, 29, 32, 34-36, 41-48, 50-52, 54 and 55 are not rendered obvious by *Lo* for at least the reasons set forth above, and thus are in condition for allowance.

CONCLUSION

For at least the foregoing reasons, Applicants submit that the rejections have been overcome. Therefore, claims 2-10, 12-18, 23-27, 29-32, 34-36, 38, 39, 41-48, 50-52, 54

and 55 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP

Date: Jan. 21, 2003

Joseph A. Pugh
Joseph A. Pugh
Attorney for Applicants
Reg. No. 52,137

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026
(503) 684-6200

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to Director U.S. Patent and Trademark Office, Washington, D.C. 20231 on:

1/21/03
Date of Deposit
Annie Pearson
Name of Person Mailing Correspondence
Annie Pearson 1/21/03
Signature Date

VERSION WITH MARKINGS TO SHOW CHANGES MADE

30. (Twice amended) A system comprising:

an Internet Protocol (IP) Ethernet network having a host coupled thereto, the host executing software to generate packets for communication on the network:

a serial bus with a bus device coupled thereto, where transfers occur to and from the bus device which adhere to the IEEE-1394 bus standard, wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network;

an interface coupling the network to the bus, the interface and host coordinating to transport bus events between the host and the bus device via tunneling bus events over the network by capturing and encapsulating the bus events into network protocols and subsequently decapsulating the bus events and recreating them, wherein the host runs an application that generates packets for the bus device and relies on an operating system that includes a driver for the bus device that issues the bus device packets and redirects the bus device packets to a network stack that encapsulates the bus device packets to create a network packet and sends the network packet to a remote bus device via the interface, the interface thereafter decapsulating the network packet to obtain the bus device packet and forwarding the bus device packet to the bus device.

31. (Twice amended) A system comprising:

an Internet Protocol (IP) Ethernet network having a host coupled thereto, the host executing software to generate packets for communication on the network:

a serial bus with a bus device coupled thereto, where transfers occur to and from the bus device which adhere to the IEEE-1394 bus standard, wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network;

an interface coupling the network to the bus, the interface and host coordinating to transport bus events between the host and the bus device via tunneling bus events over the network by capturing and encapsulating the bus events into network protocols and subsequently decapsulating the bus events and recreating them, wherein the bus device generates bus device packets for transport to the host and sends the bus device packets on the bus, the interface encapsulating the bus device packets into a network packet and forwards the network packet to the host, the host executing a network driver that decapsulates the network packet, identifies bus device packets therein and redirects the bus device packets to a bus device driver running thereon.

38. (Twice amended) A system comprising:

an Internet Protocol (IP) Ethernet network having a host coupled thereto, the host executing software to generate packets for communication on the network:

a serial bus with a bus device coupled thereto, where transfers occur to and from the bus device which adhere to the USB bus standard, wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network;

an interface coupling the network to the bus, the interface and host coordinating to transport bus events between the host and the bus device via tunneling bus events over

the network by capturing and encapsulating the bus events into network protocols and subsequently decapsulating the bus events and recreating them, wherein the host runs an application that generates packets for the bus device and relies on an operating system that includes a driver for the bus device that issues the bus device packets and redirects the bus device packets to a network stack that encapsulates the bus device packets to create a network packet and sends the network packet to a remote bus device via the interface, the interface thereafter decapsulating the network packet to obtain the bus device packet and forwarding the bus device packet to the bus device.

39. (Twice amended) A system comprising:

an Internet Protocol (IP) Ethernet network having a host coupled thereto, the host executing software to generate packets for communication on the network:

a serial bus with a bus device coupled thereto, where transfers occur to and from the bus device which adhere to the USB bus standard, wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network;

an interface coupling the network to the bus, the interface and host coordinating to transport bus events between the host and the bus device via tunneling bus events over the network by capturing and encapsulating the bus events into network protocols and subsequently decapsulating the bus events and recreating them, wherein the bus device generates bus device packets for transport to the host and sends the bus device packets on the bus, the interface encapsulating the bus device packets into a network packet and forwards the network packet to the host, the host executing a network driver that de-

capsulates the network packet, identifies bus device packets therein and redirects the bus device packets to a bus device driver running thereon.

40. (Canceled) [The system defined in Claim 12 wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network.]

49. (Canceled) [The system defined in Claim 31 wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network.]

53. (Canceled) [The system defined in Claim 39 wherein the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network.]